UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/673,360	10/16/2000	Toshihiko Oba	KOI-046	6711

7590 05/16/2006	EXAMINER
BRINK HOFFERT GILSON & LIONE P.O. BOX 10395 CHICAGO, IL 60610	PIERRE, MYRIAM

ART UNIT	PAPER NUMBER
2626	

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/673,360	OBA, TOSHIHIKO
	Examiner	Art Unit	
	Myriam Pierre	2626	.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>24 November 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>35-38,40,42-49,51,112 and 113</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>35-38,40,42-49,51,112 and 113</u> is/are rejected.

7)☒ Claim(s) <u>49</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☒ All   b)☐ Some * c)☐ None of:

       1.☒ Certified copies of the priority documents have been received.

       2.☒ Certified copies of the priority documents have been received in Application No. <u>p11-037558,9</u>.

       3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   Applicant's arguments filed 11/24/2004 regarding Office Action of 05/25/2004,

the proposed changes are approved by the examiner, amending the title and the specification and

correcting the claim objection, canceling claims 39, 46, 50, and 52; withdrawing claims 53-111;

and adding new claims 112-113.

Response to Arguments

2.   Applicant's arguments with respect to claims 35- 36, 38-39 and 41 have been considered

but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   · Claims 35-36, 38, 41-44, 47-48, 51, and 112-113 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Rueda (6,157,727) in view of Kupiec (5,500,920).

As to claim 35, Rueda teaches

A prosthetic hearing device (hearing aid, col. 2 lines 56-60) comprising:

a sensor for detecting a speech (microphone, col. 3 lines 1-10);

a speech recognition processor that performs speech recognition on the detected speech

(col. 3 lines 23-26);

an output device (output transducer, Abstract) that outputs generated speech to the user

Rueda teaches a speech generator (speech recognizer and processor, Fig. 1 and).

Rueda does not teach a speech generator for understanding the semantic meaning

detected in speech.

However, Kupiec does teach a speech generator that analyzes results of speech

recognition to comprehend a semantic meaning in detected speech transforms to detected speech

into speech having a speech form assistive in understanding the semantic meaning in the detected

speech (col. 3 lines 45-65).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention to implement's Kupiec's semantic recognition into Rueda's speech generator system

that would understand the semantic meaning because this would allow disambiguation of co-

occurrence information, (Kupiec, col. 2 lines 6-7 and 39-40).

As to claim 36, which depends on claim 35, Rueda teach

A prosthetic hearing device wherein the speech recognition processor performs speech

recognition in view of at least one of a purpose for use of the device by the user (language

translation, Abstract and col. 3 lines 20-29).

As to claim 38, which depends on claim 35, Rueda teaches

A prosthetic hearing device wherein the speech recognition processor transforms detected speech in view of at least one of a an operating condition of the prosthetic hearing device and a purpose for use of the device by the user (language translation, Abstract and col. 3 lines 20-29).

As to claim 40, which depends on claim 35, Rueda teaches

wherein the speech generator transforms the detected speech by adding thereto a modifying language (language translation, Abstract).

As to claim 41, which depends on claim 35, Rueda teaches

wherein the speech generator reproduces a speech previously produced when it determines the results from the speech recognition that it is necessary to reproduce the previously produced speech (col. 3 lines 1-10 and 20-27 and col. 1 lines 1-24; necessary storing information, thus able to reproduce it via speech generator)

As to claim 42, which depends on claim 35, Rueda teaches

wherein the speech generator reproduces speech previously produced when it determines from the result of the speech recognition that it is necessary to reproduce the previously produced speech (col. 1 lines 1-10 and 20-28).

As to claim 43, which depends on claim 35, Rueda teaches

the speech data generator controls an output rate of the speech data (col. 3 lines 20-28).

As to claim 44, which depends on claim 36, Rueda teaches

the output device outputs the speech using a sample speech data synthesized by the

speech generator (col. 3 lines 1-10 and 20-27; necessary in the translating process is a speech

synthesized from a speech generator).

As to claim 47, which depends on claim 35, Rueda teaches

the speech generator generates the speech that summarizes the detected speech (col. 3

lines 1-10 and 20-27).

As to claim 48, which depends on claim 35, Rueda does not teach a display.

However, Kupiec teaches a display, wherein the speech generator displays on the display

an image associated with the semantic meaning in the detected speech (col. 2 lines 25-30 and

lines 38-41).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention to implement Kupiec's displaying of semantic meaning into Rueda's speech

processing system, because this will allow the user to view the preferred hypothesis. (Kupiec,

col. 2 lines 25-30 and lines 38-41).

As to claim 51, which depends on claim 35, Rueda teaches

wherein the sensor selectively detects a speech necessarily from a specific speech source

(col. 1 lines 1-10 and 20-27).

As to claim 112, Rueda teaches

A prosthetic hearing device (hearing aid, col. 1 lines 56-60) comprising:

a sensor for detecting a speech (microphone, col. 3 lines 1-10)

a speech recognition processor that performs speech recognition on the detected speech

(col. 3 lines 23-26), wherein the speech recognition processor performs speech recognition in

view of at least one of a purpose for use of the device by the user (col. 3 lines 20-29, translation

purpose)

an output device (output transducer, Abstract) that outputs generated speech to the user

Rueda teaches a speech generator (speech recognizer and processor, Fig. 1 and).

Rueda does not teach a speech generator for understanding the semantic meaning

detected in speech.

However, Kupiec does teach a speech generator that analyzes results of speech

recognition to comprehend a semantic meaning in detected speech transforms to detected speech

into speech having a speech form assistive in understanding the semantic meaning in the detected

speech (col. 3 lines 45-65).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention to implement's Kupiec's semantic recognition into Rueda's speech generator system

that would understand the semantic meaning because this would allow disambiguation of co-

occurrence information, (Kupiec, col. 2 lines 6-7 and 39-40).

As to claim 113, Rueda teaches

A prosthetic hearing device (hearing aid, col. 1 lines 56-60) comprising:

a sensor for detecting a speech (microphone, col. 3 lines 1-10)

a speech recognition processor that performs speech recognition on the detected speech

(col. 3 lines 23-26), wherein the speech recognition processor performs speech recognition in

view of at least one of a purpose for use of the device by the user (col. 3 lines 20-29, translation

purpose)

an output device (output transducer, Abstract) that outputs generated speech to the user

a speech generator (speech recognizer and processor, Fig. 1)

Rueda does not teach a speech generator for understanding the semantic meaning

detected in speech.

However, Kupiec teaches a speech generator that analyzes results of speech recognition

to comprehend a semantic meaning in detected speech transforms to detected speech into speech

having a speech form assistive in understanding the semantic meaning in the detected speech

(col. 3 lines 45-65).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention to implement's Kupiec's semantic recognition into Rueda's speech generator system

that would understand the semantic meaning because this would allow disambiguation of co-

occurrence information, (Kupiec, col. 2 lines 6-7 and 39-40).

5. Claims 37 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rueda

(6,157,727) in view of Kupiec (5,500,920), as applied to claim 37, in further view of Yamaha

Corp (JP 08116596 A).

As to claim 37, which depends on claim 35, Rueda teaches

a speech recognition generator (speech recognizer and processor, Fig. 1).

Rueda in view of Kupiec do not teach a speech recognition processor performing one of speaker recognition.

However, Yamaha Corp teaches speaker recognition (Abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement the speaker recognition system of Yamaha Corp into the apparatus of Rueda in view of Kupiec, because an artisan of ordinary skill in the art would have implemented the speaker recognition system that would assist weakened hearing function especially due to old age (Yamaha Corp, Abstract and Advantage).

As to claim 45, which depends on claim 37, Rueda teaches

a memory that has stored samples of speech data (Abstract, necessary in translating process), wherein the output device outputs the sound speech data using sample speech data selected by the speech data generator from the memory (col. 3 lines 1-10 and 20-27; necessary in the translating process is a memory).

Allowable Subject Matter

6. Claim 49 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached PTO-892.

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Myriam Pierre whose telephone number is 571-272-7611. The examiner can normally be reached on 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on 571-272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR ·

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system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MP   04/23/2006

RICHEMOND DORVIL
SUPERVISORY PATENT EXAMINER